

CLAIMS

What is claimed is:

- 5 1. A spark plug extender for joining a spark plug to a spark plug wire, comprising:
an elongated body formed of heat resistant and electrically insulative material,
extending between a spark plug engagement end, and a spark plug wire connector end;
an electrical conductor extending within the body and defining the spark plug
engagement end and the spark plug wire connector end;
- 10 wherein the conductor includes a fitting at the spark plug wire connector end
adapted to releasably electrically connect to a spark plug wire;
wherein the conductor also includes a conductive receptacle at the spark plug
engagement end, adapted to electrically connect to a spark plug; and
an adjustment part disposed along the body between the spark plug engagement
15 end and the spark plug wire connector end, permitting adjustable movement of the spark
plug wire connector end relative to the conductive receptacle.
- 20 2. The spark plug extender of claim 1, wherein the heat resistant and electrically
insulative material is rigid.
- 25 3. The spark plug extender of claim 1, further comprising a selective locking
arrangement on the adjustment part and selectively operable between a locked condition
wherein adjustable movement of the spark plug wire connector end relative to the
conductive receptacle is inhibited, and an unlocked condition wherein the conductive
receptacle is free to move relative to the spark plug wire connector end.
- 30 4. The spark plug extender of claim 1, wherein the conductor is comprised of a rigid
conductive metal.
- 35 5. The spark plug extender of claim 1, wherein the conductor is comprised of a rigid
conductive rod having a diameter of approximately 0.135 – 0.185 inches.

6. The spark plug extender of claim 1, wherein the conductor is comprised of steel and the heat resistant and electrically insulative material includes alumina oxide.
7. The spark plug extender of claim 1, wherein the fitting is situated on an end of an elongated electrode and wherein the electrode leads to an opposite end that is joined to
5 the conductive receptacle.
8. The spark plug extender of claim 1, wherein the fitting is situated on an elongated electrode at an end thereof, and wherein the electrode leads to an opposite end that is threadably joined to a conductive bushing that is mounted to a spindle on the conductive
10 receptacle for rotation about a pivot axis; and
wherein the opposite end of the electrode is positioned to selectively engage and release the spindle upon rotation of the electrode such that the conductive receptacle can be alternatively (a) inhibited against rotation about the pivot axis relative to the electrode and (b) permitted to rotate about the pivot axis relative to the electrode.
15
9. The spark plug extender of claim 1, wherein the conductive receptacle is situated adjacent to the adjustment part.
10. The spark plug extender of claim 1, wherein the adjustment part is comprised of pivotably joined parts of the elongated body and the conductor which define a pivot axis
20 that is situated adjacent to the conductive receptacle.
11. The spark plug extender of claim 1, wherein the adjustment part is comprised of pivotably joined parts of the elongated body and the conductor which define a pivot axis that is situated adjacent to the conductive receptacle; and
25 further comprising an electrically insulative spacer hub mounted between the pivotably joined parts and encircling a part of the conductor.

12. A spark plug extender for joining a spark plug to a spark plug wire, comprising:
an elongated body formed of heat resistant and electrically insulative material
and extending between a spark plug engagement end, and a spark plug wire connector
end;
- 5 an electrical conductor extending within the heat resistant and electrically
insulative material from the spark plug engagement to the spark plug wire connector
end;
wherein the conductor includes a fitting at the spark plug wire connector end
adapted to releasably electrically connect to a spark plug wire;
- 10 wherein the conductor also includes a conductive receptacle at the spark plug
engagement end, adapted to electrically connect to a spark plug; and
an adjustment part comprised of a pivot joint disposed along the body between
the spark plug engagement end and the spark plug wire connector end, permitting
adjustable movement of the spark plug wire connector end and the conductive
15 receptacle about a pivot axis that intersects with the elongated body.
13. The spark plug extender of claim 12, and wherein the pivot joint is formed by the
elongated body and the electrical conductor.
14. The spark plug extender of claim 12, and wherein the conductor includes an
elongated electrode and the conductive receptacle is laterally disposed in relation to the
20 elongated electrode.
15. The spark plug extender of claim 12, and wherein the conductor includes an
elongated electrode loosely received within the heat resistant and electrically insulative
material.
- 25 16. The spark plug extender of claim 12, wherein the conductor includes an
elongated electrode and the conductive receptacle is laterally disposed in relation to the
elongated electrode, and further wherein the adjustment part is formed by the body and
the conductor along a pivot axis that is substantially perpendicular to the elongated
electrode.

17. A spark plug extender for joining a spark plug to a spark plug wire, comprising:
an elongated body formed of heat resistant and electrically insulative material,
and extending between a spark plug engagement end and a spark plug wire connector
end;
- 5 said elongated body including two pivotably interfitting body sections joined
together for pivotal movement about a pivot axis;
an electrical conductor extending within the heat resistant material to the spark
plug engagement end and the spark plug wire connector end;
said conductor including two pivotably interfitting conductor sections joined
10 together for pivotal movement substantially about said pivot axis;
wherein one conductor section includes a fitting at the spark plug wire connector
end adapted to releasably electrically connect to a spark plug wire;
wherein the remaining conductor section includes a conductive receptacle at the
spark plug engagement end, adapted to electrically connect to a spark plug; and
- 15 wherein the interfitting sections of the body and conductor comprise an
adjustment part, including a pivot joint disposed along the body between the spark plug
engagement end and the spark plug wire connector end, permitting adjustable
movement of the spark plug wire connector end and the conductive receptacle about
said pivot axis.
- 20 18. The spark plug extender of claim 17, and wherein the one conductor section is
comprised of an elongated electrode extending along an electrode axis, and wherein the
pivot axis is substantially normal to the electrode axis.
- 25 19. The spark plug extender of claim 17, and wherein the one conductor section is
comprised of an elongated electrode extending along an electrode axis and wherein the
conductive receptacle is laterally offset from the electrode axis.
20. The spark plug extender of claim 17, and wherein the interfitting sections of the
body and the conductor are disposed adjacent the spark plug engagement end.
21. The spark plug extender of claim 17, further comprising an electrically insulative
spacer hub mounted between the interfitting sections of the body and receiving a part of
30 the conductor.

22. The spark plug extender of claim 17, and wherein the heat resistant and electrically insulative material is rigid.
23. The spark plug extender of claim 17, and wherein the pivot joint is connected to a locking arrangement that is selectively operable to substantially lock the interfitting sections in selected positions about the pivot axis.
5
24. The spark plug extender of claim 17, and wherein the interfitting sections of the body include a combined width dimension measured along the pivot axis of about 1.25 inches, wherein one of the interfitting sections of the body includes a cross sectional dimension of about .5 inches, and wherein the body includes an extended length
10 dimension of about 5 inches.